

CLAIMS

1. Distribution device (D) for parts (R), notably rivets released at the outlet of a means for storage such as a vibrating recipient (100) which in the vicinity of its outlet (110) has a displacement path for said parts (R), characterized in that it is constituted of:

- a control module (200) authorizing the unitary intake of parts (R) released by said storage and distribution means (100) on the inside of a channel (C),

- a control module (300) for orienting each part (R) traveling through the channel (C), and

- a suction means intended to drive the moving parts (R) on the inside of the channel (C) in a unitary manner by accelerating the part (R) which is under the greatest depression.

2. Device (D) set forth in claim 1, characterized in that the longitudinal axis of said channel (C) is placed in a coaxial manner to the axis of parts (R).

3. Device (D) set forth in claim 1, characterized in that said control module (200) is constituted of a first detection means and of a movable element (210) located in front of the inlet of the channel (C) and whose displacement for the purpose of closing off the inlet of the channel (C) is controlled by the detection via said first detection means of the intake of a part (R) on the inside of the channel (C).

4. Device (D) set forth in claim 1, characterized in that said control module (300) is constituted of a second detection means (310) placed right next to a retractable position

retention means (320) of the part (R) inserted into the channel (C), the absence or presence of a bit of the part (R) from the side of the position retention means (320) where the detection means (310) is located thus provides information relating to the orientation of the part (R).

5. Device (D) set forth in claim 4, characterized in that said position retention means (320) is constituted of a two-prong fork (330) lying on either side of the axis of the channel (C) which it obstructs and whose gap determines the diameter of the bit, likely to pass through, of the part (R) inserted into the channel (C) and coming into contact with the prongs (330) of the fork.

6. Device (D) set forth in claims 3 and 5, characterized in that the movable control element (210) at the inlet of the channel as well as the position retention fork (330) are each actuated by the cylinder type displacement means (211 and 331).

7. Device (D) set forth in claim 1 of the same type as the one associated with a vibrating recipient (100), characterized in that it is attached to the vibrating recipient (100) to which it is associated.

8. Operating method of a distribution device (D) for parts (R), notably rivets released by a storage and distribution means such as a vibrating recipient (100) according to all the claims 1 to 6 taken as a whole, associated with a means or turning the parts (R) located downstream of the device (D), characterized in that it consists, with the suction means in running mode and the fork (330) obstructing the channel (C):

- in opening the inlet of the channel (C) by retracting the movable element (210),
- in letting the sucked part (R1) pass through;
- in closing off the channel (C) via the returning of the movable element (310) when the passing through of the part (R1) is detected in the channel (C),
- in detecting the presence or absence of a shank downstream of the fork (330),
- in retracting the fork (330) so as to let the part (R1) pass through,
- in channelling or not channelling the part (R1) towards the turning means according to the desired orientation of the parts, and
- in obstructing the channel (C) by means of the fork (330).

9. Vibrating recipient (100) bearing in the vicinity of its outlet (110) a displacement path of said parts (R), characterized in that it is preformed, in a permanent manner, to receive the device (D) constituted of a control module (200) authorizing the unitary intake of the parts (R) released by said recipient (100) on the inside of a channel (C), by a control module (200) for orientating each part (R) passing through the channel (C) and by a suction means aimed at directing the parts (R) to the inside of the channel (C), the displacement path of said parts (R) being coaxial to said channel (C).